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‘Number’ and Article Choice: The case of Persian Learners of English

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Abstract

In her theory of Feature Re-assembly, Lardiere (2007) claims that the problems learners face in acquiring a second language grammar are not due to their inability to learn new features. Rather, learners are unable (temporarily, at least) to disintegrate the features associated with a particular form in their first language and re-assemble them in a way that represents the second language characterization. ‘Number’ as a feature manipulates the English article system. Whereas the definite article can be used with both singular and plural nouns, the indefinite article is just used with singular nouns. The aim of this study, then, was to investigate the degree of difficulty Persian speakers have in using the articles for plural and singular nouns in light of the Feature Re-assembly Hypothesis. To this end, 50 EFL Learners at three levels of L2 knowledge and a native control group performed on a grammaticality judgment test. Results show that across the three proficiency levels, the participants have the same degree of difficulty with article use for plural and singular nouns and none of the groups can conform to the native control group in performance. The analysis supports the *assembly* of features view rather than the *absence* of features view as indicated by the Representational Deficit Hypothesis proposed by Hawkins & Hattori (2006).

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1. Introduction

The English article system is used to mark ‘definiteness’ on the nouns. As ‘the’ marks definite nouns, ‘a’ marks indefinite ones. However, ‘definiteness’ is not the only feature that manipulates English articles. Among others, ‘number’ is an important one. Although the definite article is not sensitive to number, the indefinite article is. In

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other words, while both singular and plural definite nouns can be preceded by ‘the’, only singular indefinite nouns are accompanied by ‘a’. Considering the fact that various studies have highlighted the difficulty English learners face in learning the article system, many such studies have pointed to the effect of L1 transfer in causing the area to be troublesome. The idea of L1 transfer is captured in two current hypotheses about second language acquisition; namely, the Feature Re-assembly Hypothesis and the Interpretability Hypothesis. The present paper aims at testing the predictions of these hypotheses using data from Persian-speaking learners of English. As the two features of interest (definiteness and number) also exist in Persian and are realized on nouns (though not exactly in a similar fashion to English), data from such learners can help provide a clearer picture of the acquisition process.

This article is organized as follows. Section 2 presents an overview of the article systems in the two languages together with a brief introduction to the two hypotheses under scrutiny. This is followed by the research questions and the method employed for the study. Section 5 provides the results of the study together with a discussion of those results. Section 6 concludes the paper with some implications for teaching the article system and for further research.

2. The article system in English and Persian

2.1. Definiteness and number in English

In English, countable nouns are either plural or singular. In other words, absence of plural marking with count nouns entails singularity. All count nouns should be preceded by an article then. Singular count nouns can be preceded either by ‘the’ or by ‘a’ and can have a definite, indefinite, or generic interpretation based on the context in which they appear. As for the plural nominals, they follow ‘the’ if definite in meaning or ‘Ø’ if indefinite or generic. This is all tabulated in the following table together with examples.

Table 1. Article choice in English

NP type	Article	Example
Definite, Singular	The	1. The child cried.
Definite, Plural	The	2. The flowers are no more fresh.
Indefinite, Singular	A	3. A man attacked me on the street.
Indefinite, Plural	Ø	4. I bought flowers for her birthday.

As stated above, bare plural nouns can have a generic interpretation based on the context they appear. Generic NPs are not the concern of the present study but an example is provided for more clarity:

5. Flowers need light.

2.2. Definiteness and number in Persian

Like English, Persian is marked for definiteness and number. However, differences in article use make the two languages different with respect to their nominal forms. Table 2 gives a detailed description together with examples.

Table 2. Article choice in Persian

NP type	Article	Example
Definite, Singular	Ø	6. bæche gerye kærð. child cry do-Past-3SG 'The child cried.'
Definite, Plural	Ø	7. bæche-ha gol dust dar-ænd. child-plu flower like have-3Plu 'Children like flowers.'
Indefinite, Singular	'i', 'yek', or both	8. ye sa'æt tu khiyabun peida kærðæm. one watch in street find did-1SG 'I found a watch in the street.'
Indefinite, Plural	'i', or both 'i' and 'yek'	9. mærdan-i xæshen karxane ra atæsh zæðænd. men-Indef rude factory Obj fire hit-Past-3Plu '(Some) rude men set the factory on fire.'
		10. æz super ye chiz-a-i xæridæm. from supermarket one thing-Plu-Indef buy-Past-1Sing 'I bought (some) things from the supermarket.'

It is necessary, however, to mention Ghomeshi's assertion (2003) that Persian does have an overt definite article which is realized in spoken language in the form of an enclitic (-e), for example:

11. doxtær-e be pirezæn-e komæk kærð
girl-Def to old woman-Def help do-Past-3Sing
'The girl helped the old woman.'

The distribution of this article is yet different from its English counterpart in that the definite article in Persian can only be used with singular nouns as the ungrammaticality of the following sentence example shows:

12. *doxtar-ha-e be pirezæn-e komæk kærðænd
*girl-Plu-Def to old woman-Def help do-Past-3Plu
* 'The girls helped the old woman.'

So, using the definite article with plural NPs would render an ungrammatical sentence whereas it is quite possible in English (as the English equivalent of 12 shows).

2.3. Feature Re-assembly Hypothesis

In her seminal article, Lardiere (2005) challenges the prevailing notion of 'parameter re-setting' arguing that the formal task facing a learner is much more complex than the simple parametric selection of a new feature. She states that grammatical categories are bundles of morpho-syntactic features whose permutation in various configurations causes cross-linguistic variations. Difficulties in learning a second language, in the framework of parameter setting and re-setting, are explained through the availability of features. If a feature is selected in the L1, it would be easy for the learner to acquire that feature in the L2. On the other hand, features that are morphologically selected in the L2 but not in the L1 would be no longer available and, therefore, unacquirable, resulting in a fossilized grammar. In the newly proposed framework of feature re-assembly, the difficulties are attributed to the massive task of

determining how to re-configure features from the way they are mapped in the L1 into new configurations which may be realized on quite different lexical items in the L2. However, as White (2009) puts in, there are two parts to this proposal. If a feature exists in the first language, sometimes the learners should associate that feature with different lexical items in the second language. An example would be the acquisition of articles in a second language like English or Greek by learners whose L1 is article-less such as Mandarin Chinese which has the feature (definiteness) but this feature is realized on other determiners such as demonstratives. So, learners' task would be to discover that the feature is realized on 'the' and 'a' in English. In the second place, if feature combinations in L1 and L2 differ, the learner will have to acquire a new language-specific configuration, assembling features into different bundles in the L2 from the L1. An example would be the way the four features of 'plural, definite, human, and animate' are assembled in English and Korean resulting in different realizations of plural in each language. Other cases of such differences abound across languages. Learning such differences would be a case of feature re-assembly. And it is this second form of re-assembly which is more complicated and more likely to pose serious problems to learners.

2.4. The Interpretability Hypothesis

Focusing on the features that comprise any functional category, the Interpretability Hypothesis is based on the idea of impossibility of parameter re-setting in second language acquisition. The hypothesis is closely related to the Failed Functional Features Hypothesis (FFFH) and the Representational Deficit Hypothesis (RDH). These hypotheses attend to the role of first language in the acquisition of a second language and they share the idea that SLA is UG-constrained but not necessarily in exactly the same way as L1 grammars are constrained. Probably, the study by Tsimpli and Roussou (1991) can be considered among the first studies that tested the idea that second language grammars were impaired or defective compared to first language grammars. They argued that learners were unable to reset parameters and suggested the No Parameter Re-setting Hypothesis. Hawkins and Chan (1997) further extended the claim and stated that certain components of UG would be inaccessible to the L2 learners, while others were fully available. The idea became known as the Failed Functional Features Hypothesis. In a nutshell, then, it was not possible for an L2 learner to reach native-like attainment in the L2 syntax due to a deficit relating to L1 transfer.

The idea of representational deficits in L2 grammars became more fine-tuned when Hawkins and Hattori (2006) made a distinction between interpretable features and uninterpretable features. They claimed that uninterpretable features disappear in adult L2 grammars if they have not been selected from the feature inventory of UG during the acquisition of learners' L1 grammar within the critical period, an idea they share with Tsimpli (2003) and Tsimpli and Dimitrakopoulou (2007). They all claim that L2 speakers' mental representations of the target language would permanently diverge from that of native speakers. But the situation is different for interpretable features. They remain available even if not selected during the acquisition of the L1. This is actually the updated version of the No Parameter Re-setting Hypothesis known as the 'Interpretability Hypothesis' or the 'Representational Deficit Hypothesis' both of which argue that L2 learners' interlanguage grammars lack uninterpretable features; hence, L2 learners have partial access to UG.

3. Research questions

Since 'definiteness' and 'number' are interpretable features in both languages, the Interpretability Hypothesis predicts that Persian-speaking learners of English are expected to learn to use the article system for singular/plural nouns easily. On the other hand, though 'definiteness' and 'number' exist in both Persian and English, their assembly in the two languages differs. It might not, then, based on the Feature Re-assembly Hypothesis, be easy for Persian-speaking learners of English to tease apart those two features and re-assemble them into a new feature combination. The study, then, seeks to find answers to the following research question.

- For which noun type (singular or plural) is article use more difficult for Persian-speaking learners of English?

- Are EFL learners eventually able to acquire ‘number’ as a feature in the sense that they will be able to associate it with articles in English?

4. Methodology

4.1. Participants

Forty three English students at the University of Sheikhabaee were screened out into three groups of grammatical knowledge based on their performance on the Oxford Placement Test (2001). They included university students majoring in teaching English as a foreign language and included freshmen, sophomores, and seniors. Being so, they had all been taught English articles in their grammar courses and previously at high school. Fifteen native speakers were also included in the study as the control group. They all were originally American having lived in their home county all their lives with almost no contact with non-native speakers.

4.2. Instrumentation

The measurement in the present study was a grammaticality judgment task (GJ). Each item on the GJ task included two sentences the first of which provided the necessary context for the interpretation of the second one. The noun phrase in question was placed in the second sentence. The participants were asked to determine if the second sentence was correct or not in the context of the first. They were also asked to correct the second sentence in case they thought it was not correct. An example item is given below:

10. Mary called her friend. She talked to *a friend* for 30 minutes. √ * ?

The task included 120 items 80 of which were of interest to this study. The rest of the items (forty in number) tested other aspects of grammar (tense for example) and were included to distract learners’ attention from the point being tested. The test items were equally distributed for number: forty items included singular NPs and the rest were plural in form.

5. Results and Discussion

How the participants performed on the GJ task is visualized in the following figure. Since definite and indefinite articles are the concern of the present study and plural nouns cannot be used with the indefinite article (though they are used with Ø article), comparisons are made considering definite singular and plural nouns. Performance on indefinite singular nouns is depicted in a separate bar.

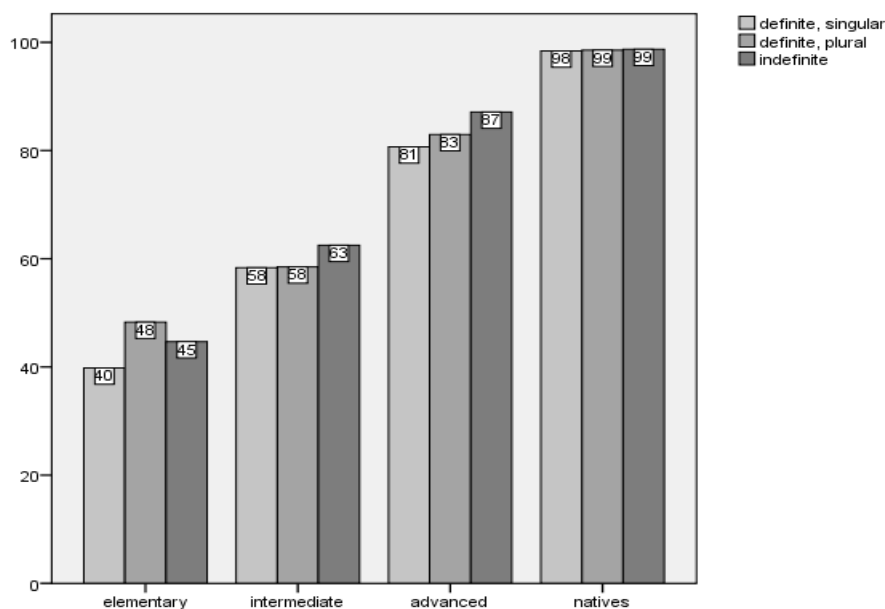


Fig. 1. Mean accuracy scores (%) on the \pm singular, \pm definite contexts on the GJ task

Regarding within group performance on singular vs. plural contexts, a series of paired-samples t-tests were conducted the results of which pointed to a statistically significant difference in the performance of the elementary group on the two contexts. This, however, can be discarded as they could not achieve 50% accuracy in either context and their performance was far from the native speaker norm. The other two groups could use articles correctly in the two contexts of singular and plural NPs almost to the same degree, hence the answer to the first research question: the participants had the same degree of difficulty using articles for singular and plural NPs.

As to the second research question, considering the definite context, analysis of variance (ANOVA) showed significant differences in the performance of the four groups for both singular and plural contexts. Also, comparisons using the Scheffe post-hoc test indicated that the elementary group was different from the other three groups. The intermediate group's performance was, in turn, different from that of the advanced and the control groups. Interestingly, the advanced group showed a significant deviance from the native speaker performance as well. Article use for indefinite singular nouns was, however, native-like at the advanced level. In other words, only the advanced participants were similar to the control group in their performance in the indefinite singular context. This shows that the definite article poses a serious difficulty for Persian learners as they are fossilized even at the highly advanced level of grammatical knowledge. The indefinite article is acquirable at the advanced level though. The results then provide a negative answer to the second question of the study as, at least in case of the definite article, the participants were lagging behind the native speaker group even at the advanced level.

Moreover, analysis of the participants' performance on un/grammatical items included in the test can reveal additional facts about their performance. As presented in Figure 2 below, even the elementary participants were able to recognize grammatical sentences on the test to an acceptable extent (78%). In fact, analysis of variance verified the fact that only the elementary group could not conform to the native speakers in recognizing the correct definite singular and plural NPs. The other two groups were similar in performance to the natives. Across the three groups, however, recognition of ungrammatical sentences was not at all similar among themselves or to the native control group. In other words, not even the highly advanced group could conform to the control group in their recognition of ungrammatical sentences. More interestingly, it is observed that recognition of ungrammatical definite sentences

which contained a 'zero' article was much more difficult for the participants across the three groups than those sentences that included 'a', a point which is evidence for L1 transfer. Definite singular and plural nouns in Persian are accompanied with a 'zero' article (as exemplified in 5 and 6 above). Clear transfer of the L1 properties can, then, be observed in these learners' inability to recognize ungrammatical sentences which included bare NPs. They were significantly better in recognition and correction of those ungrammatical definite items which included 'a' which, again, can be traced back to their L1. There is an overt indefinite article in Persian and it seems that the participants here have been able to associate its properties to the article existing in English.

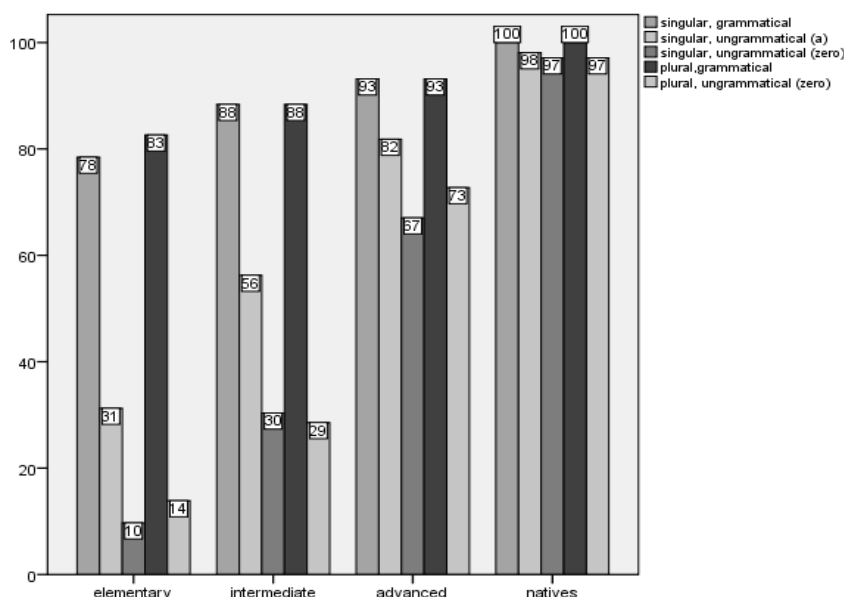


Fig. 2. Singular/plural definite nouns on the GJ task

Based on the Interpretability Hypothesis, Persian learners are expected to be accurate in article use in a language which, like their L1, has the interpretable features of concern. The expectation, however, was not met. The results of this study, then, are more in line with the predictions of the second hypothesis, that is, the Feature Re-assembly Hypothesis as it seems to be a more reasonable justification for the way these participants performed on the task.

6. Conclusion

The present study provided additional support for the repeatedly reported observations of the difficulty Persian-speaking learners have in their article use in English. The indefinite article was shown to be ultimately acquirable for such learners but the definite article remained an unsolved problem. The participants had the same mastery over article use for plural and singular NPs; that is, their performance was non-native like. It was also reasoned that the Feature Re-assembly Hypothesis could better explain the observed achievement. There is still much room for further research, however, as 'number' is not the only feature that affects article use. Many more complications can be added to the present situation as more features are involved in article which needs to be studied before one can strongly take article acquisition as a case supporting the predictions of the Feature Re-assembly Hypothesis. Also, more studies are needed to attend to the pedagogical aspect of the problem in order to suggest more efficient ways of dealing with those two little English words.

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